

# Green Building Overview

The construction of cities—homes, businesses, roads and other associated infrastructure—has had a profound impact on the natural environment. By rethinking the way we develop and redevelop, many of these environmental issues can be minimized or eliminated entirely, leaving us with healthy homes and workplaces, and vibrant communities.

Green building is an approach to the design, construction and operation of buildings that aims to reduce or eliminate the negative environmental impacts of buildings while promoting occupant health and productivity. Green building requires an interdisciplinary approach that considers energy efficiency of buildings, transportation options and traffic impacts, historic preservation, water quality, water conservation, air quality, health of the indoor environment, materials reuse and recycling. Considering the building's orientation to the sun and relying on natural sunlight for light and passive heating, using recycled construction materials, and designing a vegetated "green roof" are all examples of various green building practices.

It is been estimated that by altering our building practices, we can make buildings that use 30 to 50 times less energy, emit 35 percent less carbon dioxide (a greenhouse gas), consume 40 percent less water and produce 70 percent less solid waste.

According to the US Environmental Protection Agency, in the U.S buildings accounted for:

- 12% of potable water use
- 39% of primary energy use
- 68% of electricity consumption
- 40% of raw materials extraction
- 38% of carbon dioxide emissions
- 66% of total non-industrial waste

## Rockville Green Building Program

- **Building Codes:** On May 10, 2010, the Mayor and Council adopted comprehensive amendments to Chapter 5 of the City Code, "Buildings and Building Regulations," that incorporate energy efficiency, water conservation and green building practices in new construction, major additions and renovations. The ordinance established Article XIV, "Green Building Regulations," to improve the efficiency and environmental quality of buildings and homes. The updated building codes apply to new both commercial and residential buildings. On June 18, 2012, the Mayor and Council approved an ordinance that adopts the 2012 International Code Council (ICC) model codes (including the 2012 International Energy Conservation Code), as required by the Maryland Building Performance Standards. Local governments must enforce these codes by July 1, 2012.
- **Incentives:** On April 30, 2012, the Mayor and Council adopted an ordinance to revise Chapter 22 (Taxation) of the Rockville City Code to create the "High Performance Building Property Tax Credit for Existing Commercial Buildings," also referred to as the green building tax credit. The tax credit creates a financial incentive for existing commercial buildings for improvements related to energy efficiency, renewable energy, water conservation, stormwater management, alternative transportation, greenhouse gas reduction, sustainable purchasing, green cleaning and waste management. The incentive does not apply to owners that construct new buildings or owners who undertake significant building renovations or additions affecting more than 50 percent of the total building floor area, since these actions are governed by the requirements of the City's green building regulations. *The Mayor and Council must appropriate funds in the operating budget before the tax credit become effective and applications can be approved.*